

REMARKS

Claims 1, 2, 7, 8, 13-15, 17, 18, 21, 25, 26, 29, 31-35, 38, 40-42 are pending in this application. By this Amendment, claims 8 and 38 have been amended, and claims 3, 9 and 41 have been canceled.

The allowability of claims 13-15, 17, 18, 29 and 31-35 is noted with appreciation. In addition, the objection to claim 39 is noted and claim 38 has been amended to include the subject matter of claim 39. Accordingly, claim 38 and claims 40-42 that depend from claim 38 are believed to be allowable.

The Office Action objects to claims 3 and 9 under Rule 75. Accordingly, these claims have been canceled.

The Office Action rejects claims 1, 3, 7, 9, 21 and 25 under 35 U.S.C. 102(b) as allegedly being anticipated by U.S. Patent No. 5,126,748 to Ames et al. ("Ames").

Independent claims 1, 7, 21 and 25 describe, in varying degrees of detail, that a first chirp portion (e.g., up-chirp) is embedded in a first frame or portion of a communication signal and a second chirp portion (e.g., down-chirp) is embedded in a second frame or portion of a communication signal.

Ames describes a dual satellite navigation system and shows in FIG. 5 the signal carrier waveform of signals 20 and 22 that are swept linearly up and down in frequency from a nominal base or center frequency in a chirping manner. (Ames, 16: 25-45.) First, it is pointed out that these so-called "forward signals" are not spread spectrum modulated signals. Ames describes that FIG. 5 illustrates the signal carrier waveforms for signals 20 and 22 whose carrier frequencies are swept in such a manner. Thus, Ames does not teach the generation of a chirp spread spectrum modulated signal having first and second chirp portions.

Second, Ames does not teach or suggest embedding a first chirp portion (e.g., up-chirp) in a first portion or time frame of a communication signal and a second chirp portion (e.g., down-chirp) in a second portion or time frame of a communication signal. It is acknowledged that Ames (10:15-18) states that information communicated between the fixed station 10 and mobile unit 12 may be transmitted in time frames in a TDMA format. However, Ames does not teach or suggest embedding a chirp spread spectrum signal having

a first chirp portion into a first frame or portion of the communication signal and a second chirp portion into a second frame or portion of the communication signal.

The remaining claim rejections relate to combinations of Ames with one or more other references of record, including Gilhousen, Schuchman and Keegan. However, none of these references adds any teaching, assuming they are properly combinable with Ames, relevant to the subject matter of the rejected claims.

Based on the foregoing, it is respectfully submitted that the present application is in condition for allowance. No extension of time or other fees are believed to be due, except as detailed in the attached documents. However, Applicants hereby petition for any extension of time that may be necessary to maintain the pendency of this application. The Commissioner is hereby authorized to charge payment of any additional fees required for the above-identified application or credit any overpayment to Deposit Account No. 05-0460.

Respectfully submitted,



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